

January 9, 2019

U.S. Army Corps of Engineers, Galveston District  
Attn: Ms. Jennifer Morgan, Environmental Compliance Branch, Regional Planning and  
Environmental Center  
P.O. Box 1229  
Galveston, TX 77553-1229

RE: Coastal Texas Protection & Restoration Feasibility Study and the Tentatively Selected Plan

Dear Ms. Morgan,

On behalf of the City of Galveston (City), I want to thank you for the opportunity to share our comments regarding the Coastal Texas Protection and Restoration Feasibility Study and the Tentatively Selected Plan (TSP).

The City has long-supported the coastal barrier protection concept known as the coastal spine “Ike Dike” as proposed by Dr. William Merrell at Texas A&M University at Galveston (TAMUG). In 2012, the Galveston City Council adopted a resolution setting forth support for the coastal spine system of barriers and gates extending along Galveston Island and the Bolivar Peninsula. The land barrier coastal spine, as envisioned by Dr. Merrell, included flood gates at Bolivar roads, Houston and Galveston ship channel entrances, and San Luis Pass.

A land barrier coastal spine system along the upper Texas coastline is a critical national security and economic protection priority the City views as vital to the nation’s interstate commerce and economy. The City applauds the extensive work by the U.S. Corps of Engineers (Corps of Engineers) on a TSP strategy that involves a coastal barrier system as the preferred option for protecting the upper Texas coastline from devastation caused by hurricane storm surge.

The TSP generated tremendous interest and discussion as evidenced by hundreds of Galveston residents attending the Corps of Engineers public meeting held on December 12, 2018. In preparing comments on the TSP, the City has also drawn upon additional public input received during a Special Meeting held by the Galveston City Council on January 3, 2019, regarding the proposed TSP. Further, the City’s comments reference proposed TSP modifications submitted by Dr. Merrell to the Corps of Engineers during this public comment period.

The City takes this opportunity to share the following concerns:

1. ***Galveston Ring Levee.*** The TSP includes a ring levee located around the eastern part of the City with a design calling for the seawall to be raised and the ring levee structure built to a height of 18-feet on the backside of the City. The proposed placement of the ring levee divides neighborhoods and leaves the Port of Galveston unprotected. Fearing the City is left vulnerable to a similar bowl scenario in New Orleans following Hurricane Katrina, many Galveston residents strongly oppose a ring levee reliant upon a complex system of pumping stations and other structures. The presence of a properly designed and maintained coastal spine protection system would reduce surge and eliminate or significantly minimize the need for this secondary barrier.
  - ***Recommendation:*** The City agrees with Dr. Merrell's assessment that a more cost-efficient protection can be achieved by less intrusive means than an expensive ring levee requiring considerable maintenance. For example, TAMUG modeling of eight storms demonstrates a gate at San Luis Pass can help manage water levels and reduce storm surge in Galveston Bay (the Bay). The City urges the Corps of Engineers to rethink the Galveston ring levee and consider the TSP modifications proposed by Dr. Merrell that effectively manage water levels in the Bay and reduce the need for a secondary barrier.
2. ***Placement of the proposed levee and floodwall land barriers.*** Galveston residents have voiced strong opposition to the TSP proposed placement of the levee and land barrier system adjacent to and north of FM 3005 on Galveston's West End. The current alignment of the barriers unnecessarily leaves some residents protected while others are left exposed to substantial surge damage. Many residents fear public takings to build the barrier structures or lower property values and increased insurance rates for those properties on the seaward side that are subject to increased surge.
  - ***Recommendation:*** The Corps of Engineers should re-examine the design and construction of sand-based fortified dunes as natural appearing floodwall barriers along the beach to maximize protection for all residents and businesses. Moreover, barriers located on the public beach eliminates the displacement of property owners and provides a natural and visually-appealing environment that supports dune ecosystems.
3. ***Environmental concerns.*** The Upper Texas Coast is an important resource for commercial and recreational fishing and the harvest of shrimp, crabs, finfish and oysters that are vital to the local and state economy. Without design modifications, concerns are the proposed Bolivar Roads floodgate fails to mitigate the ecological impacts of restricting water flow effecting water salinity and the movement of fish and shellfish. The ecosystem modeling used by the Corps of Engineers must thoroughly assess the impacts to water quality, circulation, and the sea life so critical to this region.
  - ***Recommendation:*** The Corps of Engineers should utilize the best technology available when designing gate structures to minimize the adverse impacts of water flow restriction. The City urges the Corps of Engineers to closely examine TSP modifications proposed

by Dr. Merrell that would reduce the size of navigation gates to Bolivar Roads, allow larger flow openings for some gates in the present design, and utilize accordion or inflatable gates near Bolivar. According to Dr. Merrell, such alternatives would permit sufficient water conditions in the Bay to sustain ecosystems while continuing sea life exchange between the Gulf and the Bay.

4. ***Construction and Maintenance Costs.***

Corps of Engineers cost estimates for the upper coastal barrier system as proposed in the TSP are \$14.2 billion to \$19.9 billion, a wide variance from cost estimates for a similar system proposed by the Gulf Coast Community Protection and Recovery District Construction (\$9.5 billion) or the independent Dutch cost analysis for the coastal spine configuration proposed by Dr. Merrell (\$9.2 billion). TSP modifications proposed by Dr. Merrell can produce significant cost savings while creating a coastal barrier system that provides the best protection for the upper Texas coastline and meshes well with the environmental, economic, and social fabric of Galveston and our region.

The City supports the Corps of Engineers efforts to address beach and dune nourishment for Galveston Island in the TSP. While an engineered sand dune barrier approach is the preferred alternative to the TSP proposal, the City is concerned a significant re-nourishment commitment will be needed to maintain the beaches, a maintenance obligation well beyond financial means of the City.

*Recommendation:* The Corps of Engineers should work to reduce costs by eliminating the ring levee, re-designing the navigation gates at Bolivar Roads and evaluating the addition of a gate at San Luis Pass. Downsized navigation gates at Bolivar Roads along with a gate at San Luis Pass may provide for proper water flow while reducing the need for dredging and a ring levee. When developing the final plan, the City strongly urges the Corps of Engineers to commit to the beach and dune maintenance needs that will be critical for supporting the use of natural appearing dune barrier systems near or on the beach.

Finally, the City recognizes the Texas General Land Office Commissioner George P. Bush for his leadership as the non-federal partner working with the Corps of Engineers to advance the best coastal barrier protection option. The City echoes Commissioner Bush's support for additional studies of the TSP to minimize the impact to the surrounding community, an extension of the current public comment period, and a second round of public meetings that allows the public to review how the Corps of Engineers has incorporated feedback to date.

We greatly appreciate your consideration of this request.

Sincerely,

James D. Yarbrough  
Mayor of Galveston

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